

	Type	Hits	PLUS Search Text	DBs	Time Stamp
1	BRS	49	("5832446" "5960440" "4837414" "5438180" "5321232" "6292830" "4037272" "6030061" "5179361" "5932863" "5990460" "5777876" "3613553" "4503502" "5655130" "4315320" "4506346" "5680617" "6049328" "6067478" "5251314" "5451935" "5882192" "6108668" "6175298" "6236974" "5910009" "4420669" "4430540" "4475228" "5933288" "5973318" "4444761" "6451369" "4807169" "5548506" "4840239" "4914277" "5617774" "5859414" "5884281" "6095625" "6116230" "6220854" "6220854" "6486453" "5316707" "6466975"	USPAT	2004/10/28 11:43

09/560386

	L #	Hits	EAST Search Text	DBs	Time Stamp	Type
1	L1	7	(("6618062") or ("6746371") or ("6601016") or ("6604023") or ("6622115") or ("6636808") or ("6430541")).PN.	USPAT	2004/10/28 11:31	IS&R
2	L2	24	("5412564"   "5559313"   "5664110"   "5727153"   "5845263"   "5899502"   "5969316"   "5991739"   "6026377"   "6047327"   "6068183"   "6087927"   "6088681"   "6123259"   "6129274"   "6208976"   "6236974"   "6246998"   "6301564"   "6334109"   "6366220"   "6401034"   "6405034"   "6434530").PN.	USPAT	2004/10/28 11:41	BRS
3	L3	0	6618062.URPN.	USPAT	2004/10/28 11:41	BRS
4	L4	7	("4882724"   "4992940"   "5691684"   "5798694"   "5969606"   "5983200"	USPAT	2004/10/28 11:43	BRS
5	L5	1	6430541.URPN.	USPAT	2004/10/28 11:42	BRS
6	L1 5	3383	(menu OR recipe OR food WITH (cook\$3 OR prepar\$6 OR select\$3)) WITH (cost\$1 OR budget\$3 OR pric\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/28 11:59	BRS
7	L1 6	27	L15 AND (cookbook OR cook ADJ book)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/28 13:50	BRS
8	L1 7	20	4807169.URPN.	USPAT	2004/10/28 12:57	BRS
9	L1 8	5	5960440.URPN.	USPAT	2004/10/28 13:05	BRS
10	L1 9	21	5884281.URPN.	USPAT	2004/10/28 13:09	BRS
11	L2 0	4	6246998.URPN.	USPAT	2004/10/28 13:46	BRS
12	L2 1	1	("6553386").PN.	USPAT	2004/10/28 14:07	IS&R
13	L1 68	0	kitchen ADJ budget\$3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/28 14:07	BRS
14	L1 69	6	kitchen WITH budget\$3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/28 14:07	BRS

09/560386

	1	Document ID	Source	Issue Date	Title	Current OR	Inventor	2
1	<input checked="" type="checkbox"/>	US 6553386 B1	USPAT	20030422	System and method for computerized visual diet behavior analysis and	707/104.1	Alabaster, Oliver	<input checked="" type="checkbox"/>
2	<input checked="" type="checkbox"/>	US 6236974 B1	USPAT	20010522	Method and apparatus for automated selection and organization of products including menus	705/7	Kolawa, Adam K. et al.	<input type="checkbox"/>
3	<input type="checkbox"/>	US 6038546 A	USPAT	20000314	System and method for creating a food order sales receipt identifying nutritional information of a customized meal	705/15	Ferro, Jay	<input checked="" type="checkbox"/>
4	<input type="checkbox"/>	US 5774871 A	USPAT	19980630	System and method for creating a food order sales receipt identifying nutritional information of a customized meal	705/15	Ferro, Jay	<input checked="" type="checkbox"/>
5	<input checked="" type="checkbox"/>	US 5832446 A	USPAT	19981103	Interactive database method and system for food and beverage preparation	705/1	Neuhaus, Thomas	<input type="checkbox"/>
6	<input type="checkbox"/>	US 6381614 B1	USPAT	20020430	Recipe database that integrates menus for food preparation of multiple dishes based on skill level	707/104.1	Barnett, Jeffery R. et al.	<input checked="" type="checkbox"/>
7	<input checked="" type="checkbox"/>	US 6430541 B1	USPAT	20020806	Managing inventory purchases	705/28	Brown, Michael Wayne et al.	<input type="checkbox"/>
8	<input checked="" type="checkbox"/>	US 4807169 A	USPAT	19890221	Information device concerning food preparation	708/200	Overbeck, Felix J.	<input type="checkbox"/>
9	<input type="checkbox"/>	US 5960440 A	USPAT	19990928	Kitchen information and database management method and apparatus	707/104.1	Brenner, Richard K. et al.	<input checked="" type="checkbox"/>
10	<input type="checkbox"/>	US 5884281 A	USPAT	19990316	Electronic grocery lister	705/26	Smith, Samuel Bernard et al.	<input checked="" type="checkbox"/>
11	<input checked="" type="checkbox"/>	US 6513017 B1	USPAT	20030128	System and method for household grocery management	705/28	Howard, Dale S. et al.	<input type="checkbox"/>
12	<input type="checkbox"/>	CN 1416096 A	DERW ENT	20030507	Method for remote controlled ordering dishes		DONG, J	<input checked="" type="checkbox"/>
13	<input checked="" type="checkbox"/>	US 6246998 B1	USPAT	20010612	System and method for home grocery shopping including item categorization for efficient delivery and	705/27	Matsumori, Kunihiro	<input type="checkbox"/>



US006430541B1

Search  
notes

09/560386

10/28/04

(12) **United States Patent**  
**Brown et al.**

(10) **Patent No.:** **US 6,430,541 B1**  
(45) **Date of Patent:** **Aug. 6, 2002**

(54) **MANAGING INVENTORY PURCHASES**

6,204,763 B1 \* 3/2001 Sone ..... 340/568.1

(75) **Inventors:** **Michael Wayne Brown**, Georgetown;  
**Kelvin Roderick Lawrence**; **Michael**  
**A. Paolini**, both of Round Rock, all of  
TX (US)

**FOREIGN PATENT DOCUMENTS**

JP 10-105078 \* 4/1998

**OTHER PUBLICATIONS**

(73) **Assignee:** **International Business Machines**  
**Corporation**, Armonk, NY (US)

"Nutrition software helps weight conscious PC users plan and stick to diets" by Don Trivette, PC Magazine, Oct. 16, 1990, v9 n17, pp. 557-558.\*  
iButton Overview, Mar. 2, 2000 "What's the Java-powered Ring?"

(\*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

\* cited by examiner

(21) **Appl. No.:** **09/560,319**

**Primary Examiner**—Kenneth R. Rice

(22) **Filed:** **Apr. 28, 2000**

(74) **Attorney, Agent, or Firm**—Marilyn Smith Dawkins;  
Bracewell & Patterson, L.L.P.

(51) **Int. Cl.**<sup>7</sup> ..... **G60F 17/60**

(57) **ABSTRACT**

(52) **U.S. Cl.** ..... **705/28; 705/29**

(58) **Field of Search** ..... **705/28, 29**

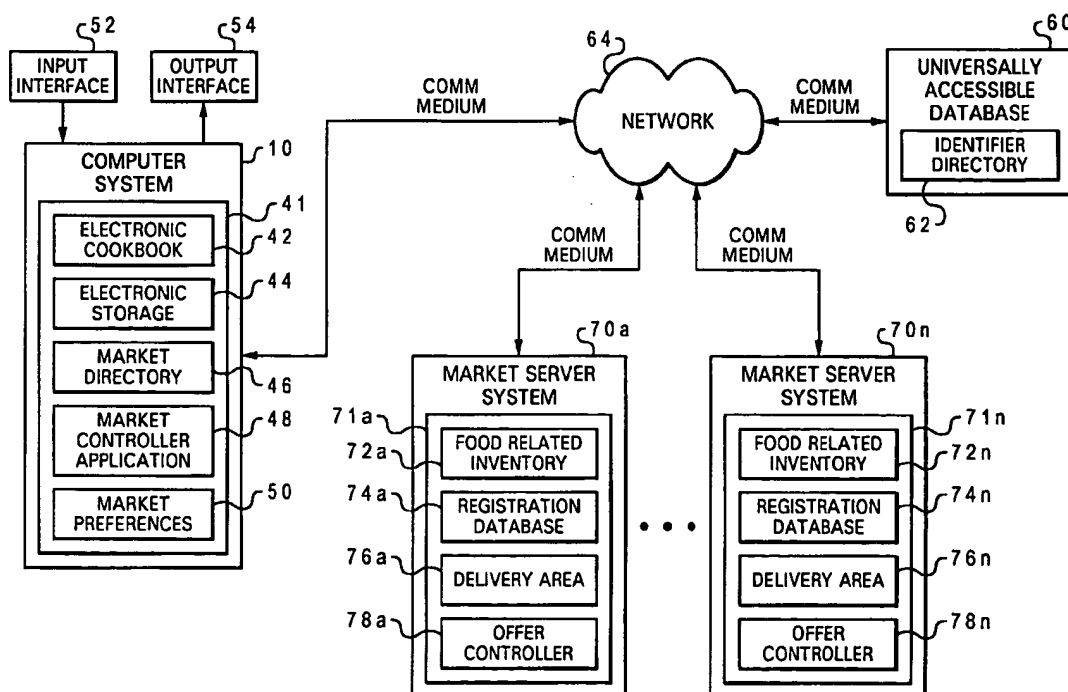
In accordance with the present invention, absent items from an intended inventory are monitored at a computer system. Search requests for the absent items are automatically transmitted from the computer system to multiple independent product databases each respectively associated with one of multiple retailers. Offers are returned from multiple retailers to the computer system, such that inventory purchases for the particular household are managed by the computer system.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

4,882,724 A 11/1989 Vela et al.  
4,992,940 A \* 2/1991 Dworkin ..... 705/26  
5,691,684 A 11/1997 Murrah  
5,798,694 A 8/1998 William et al.  
5,969,606 A 10/1999 William et al.  
5,983,200 A 11/1999 Slotznick

**42 Claims, 8 Drawing Sheets**



11

request is received, then the process passes to block 166. Block 166 depicts filtering the food related inventory of the on-line retailer according to each element of the search request for a particular item. Next, block 168 illustrates transmitting the product offers to the requesting system; and the process ends.

With reference now to FIG. 8, there is illustrated a high level logic flowchart of a process and program for controlling access to a universally accessible server system via a universally accessible database in accordance with the present invention. As illustrated, the process starts at block 200 and thereafter proceeds to block 202. Block 202 depicts a determination as to whether or not data and a universal communications identifier (UCID) are received at a universally accessible database. If data and a UCID are not received, then the process passes to block 210. If data and a UCID are received, then the process passes to block 204. Block 204 illustrates a determination as to whether or not a match to the UCID is found in the UCID directory of the universally accessible database. If a match is not found, then the process passes to block 208. Block 208 depicts returning an error message; and the process ends. If a match is found, then the process passes to block 206. Block 206 illustrates transmitting the data to the address of the matching universally accessible remote server system; and the process ends.

Block 210 depicts a determination as to whether or not a request for data and a UCID are received at the universally accessible database. If a request for data and UCID are not received, then the process passes to block 202. If a request for data and UCID are received, then the process passes to block 212. Block 212 illustrates a determination as to whether or not a match to the UCID is found in the UCID directory of the universally accessible database. If a match is not found, then the process passes to block 208. If a match is found, then the process passes to block 214. Block 214 depicts accessing the universally accessible remote server system at a server address associated with the matched UCID; and the process ends.

It is important to note that, although the present invention has been described in the context of a fully functional computer system, those skilled in the art will appreciate that the mechanisms of the present invention are capable of being distributed as a program product in a variety of forms, and that the present invention applies equally regardless of the particular type of signal-bearing media utilized to actually carry out the distribution. Examples of signal-bearing media include, but are not limited to, recordable-type media such as floppy disks or CD-ROMs and transmission-type media such as analogue or digital communications links.

While the invention has been particularly shown and described with reference to a preferred embodiment, it will be understood by those skilled in the art that various changes in form and detail may be made therein without departing from the spirit and scope of the invention.

What is claimed is:

1. A method for managing inventory purchases, said method comprising the steps of:

receiving a meal plan having at least one meal associated with a designated time, said meal plan including items necessary for preparing said at least one meal;  
monitoring, at a computer system, a current inventory;  
determining whether said items of said received meal plan are absent from said current inventory;  
automatically transmitting search requests for said absent items from said computer system, based on stored user preferences and based on when said absent items are to be received for use in preparing said least one said meal

12

at said designated time, to a plurality of independent product databases each respectively associated with one of a plurality of retailers; and

automatically transmitting a purchase request to a particular retailer based on a result of said search requests, such that inventory purchases are managed by said computer system.

2. The method for managing inventory purchases according to claim 1, said step of automatically transmitting search requests for said absent items based on user preferences from said computer system to a plurality of independent product databases each respectively associated with one of a plurality of retailers, further comprising the steps of:

comparing said absent items with user preferences for at least one user; and

transmitting a search request for a particular absent item to a particular retailer, in response to determining that said user preferences include said particular retailer from which purchase of said particular absent item is preferred.

3. The method for managing inventory purchases according to claim 1, said step of automatically transmitting search requests for said absent items based on user preferences from said computer system to a plurality of independent product databases each respectively associated with one of a plurality of retailers, further comprising the step of:

transmitting said search requests for said absent items including any brand preferences, schedule preferences, and budget preferences included in said user preferences.

4. The method for managing inventory purchases according to claim 1, said step of automatically transmitting search requests for said absent items based on user preferences from said computer system to a plurality of independent product databases each respectively associated with one of a plurality of retailers, further comprising the step of:

automatically transmitting search requests in an extensible mark-up language data format.

5. The method for managing inventory purchases according to claim 1, said step of automatically transmitting search requests for said absent items based on user preferences from said computer system to a plurality of independent product databases each respectively associated with one of a plurality of retailers, further comprising the step of:

transmitting search requests to a plurality of on-line retailers included in a directory of on-line retailers sorted according to types of products and services offered.

6. The method for managing inventory purchases according to claim 1, said step of automatically transmitting search requests for said absent items based on user preferences from said computer system to a plurality of independent product databases each respectively associated with one of a plurality of retailers, further comprising the step of:

transmitting said search requests for said absent items to a universally accessible database according to a plurality of universal identifiers, wherein each of said plurality of universal identifier is associated with one of said plurality of retailers.

7. The method for managing inventory purchases according to claim 1, said method further comprising the step of: constructing a recommended electronic shopping list comprising said absent items from a selection of offers returned from said plurality of retailers at said computer system.

8. The method for managing inventory purchases according to claim 7, said step of constructing a recommended

13

electronic shopping list comprising said absent items from a selection of offers returned from said plurality of retailers at said computer system, further comprising the step of:

constructing said recommended electronic shopping list comprising said absent items from said selection of offers returned from said plurality of retailers according to user preferences for a particular household.

9. The method for managing inventory purchases according to claim 8, said step of constructing a recommended electronic shopping list comprising said absent items from a selection of offers returned from said plurality of retailers at said computer system, further comprising the step of:

constructing said recommended electronic shopping list comprising absent items according to scheduling constraints for a particular household.

10. The method for managing inventory purchases according to claim 7, said method further comprising the step of:

transmitting orders for said absent items to said selection of said plurality of retailers, in response to receiving a user designation to purchase from said recommended electronic shopping list.

11. The method for managing inventory purchases according to claim 1, said method further comprising the steps of:

periodically transmitting search requests to said plurality of retailers for current specials offered by said plurality of retailers;

determining if any of said special product offers include items that are designated in user preferences for automatic purchase, in response to receiving special product offers; and

transmitting an order for a particular special product offer from a particular retailer, in response to determining that said particular special product order is designated in said user preferences for automatic purchase.

12. The method of claim 1, wherein said absent items are delivered by said particular retailer.

13. The method of claim 1, further comprising the step of: scheduling a pick-up of said absent items by an ordering party of said absent items.

14. The method of claim 1, wherein said meal plan is received from an electronic cookbook.

15. A system for managing inventory purchases, said system comprising:

means for receiving a meal plan having at least one meal associated with a designated time, said meal plan including items necessary for preparing said at least one meal;

means for monitoring, at a computer system, a current inventory;

means for determining whether said items of said received meal plan are absent from said current inventory; and

means for automatically transmitting search requests for said absent items from said computer system, based on stored user preferences and based on when said absent items are to be received for use in preparing said at least one said meal at said designated time, to a plurality of independent product databases each respectively associated with one of a plurality of retailers; and

means for automatically transmitting a purchase request to a particular retailer based on a result of said search requests, such that inventory purchases are managed by said computer system.

16. The system for managing inventory purchases according to claim 15, said means for automatically transmitting

14

search requests for said absent items based on user preferences from said computer system to a plurality of independent product databases each respectively associated with one of a plurality of retailers, further comprising:

means for comparing said absent items with user preferences for at least one user; and

means for transmitting a search request for a particular absent item to a particular retailer, in response to determining that said user preferences include said particular retailer from which purchase of said particular absent item is preferred.

17. The system for managing inventory purchases according to claim 15, said means for automatically transmitting search requests for said absent items based on user preferences from said computer system to a plurality of independent product databases each respectively associated with one of a plurality of retailers, further comprising:

means for transmitting said search requests for said absent items including any brand preferences, schedule preferences, and budget preferences included in said user preferences.

18. The system for managing inventory purchases according to claim 15, said means for automatically transmitting search requests for said absent items based on user preferences from said computer system to a plurality of independent product databases each respectively associated with one of a plurality of retailers, further comprising:

means for automatically transmitting search requests in an extensible mark-up language data format.

19. The system for managing inventory purchases according to claim 15, said means for automatically transmitting search requests for said absent items based on user preferences from said computer system to a plurality of independent product databases each respectively associated with one of a plurality of retailers, further comprising:

means for transmitting search requests to a plurality of on-line retailers included in a directory of on-line retailers sorted according to types of products and services offered.

20. The system for managing inventory purchases according to claim 15, said means for automatically transmitting search requests for said absent items based on user preferences from said computer system to a plurality of independent product databases each respectively associated with one of a plurality of retailers, further comprising:

means for transmitting said search requests for said absent items to a universally accessible database according to a plurality of universal identifiers, wherein each of said plurality of universal identifier is associated with one of said plurality of retailers.

21. The system for managing inventory purchases according to claim 15, said system further comprising:

means for constructing a recommended electronic shopping list comprising said absent items from a selection of offers returned from said plurality of retailers at said computer system.

22. The system for managing inventory purchases according to claim 21, said means for constructing a recommended electronic shopping list comprising said absent items from a selection of offers returned from said plurality of retailers at said computer system, further comprising:

means for constructing said recommended electronic shopping list comprising said absent items from said selection of offers returned from said plurality of retailers according to user preferences for a particular household.

15

23. The system for managing inventory purchases according to claim 22, said means for constructing a recommended electronic shopping list comprising said absent items from a selection of offers returned from said plurality of retailers at said computer system, further comprising:

means for constructing said recommended electronic shopping list comprising absent items according to scheduling constraints for a particular household.

24. The system for managing inventory purchases according to claim 21, said system further comprising:

means for transmitting orders for said absent items to said selection of said plurality of retailers, in response to receiving a user designation to purchase from said recommended electronic shopping list.

25. The system for managing inventory purchases according to claim 15, said system further comprising:

means for periodically transmitting search requests to said plurality of retailers for current specials offered by said plurality of retailers;

means for determining if any of said special product offers include items that are designated in user preferences for automatic purchase, in response to receiving special product offers; and

means for transmitting an order for a particular special product offer from a particular retailer, in response to determining that said particular special product order is designated in said user preferences for automatic purchase.

26. The system of claim 15, wherein said absent items are delivered by said particular retailer.

27. The system of claim 15, further comprising:

means for scheduling a pick-up of said absent items by an ordering party of said absent items.

28. The system of claim 15, wherein said meal plan is received from an electronic cookbook.

29. A computer program for managing inventory purchases, residing on a computer usable medium having computer readable program code means, said computer program comprising:

program code means for receiving a meal plan having at least one meal associated with a designated time, said meal plan including items necessary for preparing said at least one meal;

program code means for monitoring, at a computer system, a current inventory;

program code means for determining whether said items of said received meal plan are absent from said current inventory;

program code means for automatically transmitting search requests for said absent items from said computer system, based on stored user preferences and based on when said absent items are to be received for use in preparing said at least one said meal at said designated time, to a plurality of independent product databases each respectively associated with one of a plurality of retailers; and

program code means for automatically transmitting a purchase request to a particular retailer based on a result of said search requests, such that inventory purchases are managed by said computer system.

30. The program for managing inventory purchases according to claim 29, said program further comprising:

program code means for comparing said absent items with user preferences for at least one user; and

program code means for transmitting a search request for a particular absent item to a particular retailer, in

16

response to determining that said user preferences include said particular retailer from which purchase of said particular absent item is preferred.

31. The program for managing inventory purchases according to claim 29, said program further comprising:

program code means for transmitting said search requests for said absent items including any brand preferences, schedule preferences, and budget preferences included in said user preferences.

32. The program for managing inventory purchases according to claim 29, said program further comprising:

program code means for automatically transmitting search requests in an extensible mark-up language data format.

33. The program for managing inventory purchases according to claim 29, said program further comprising:

program code means for transmitting search requests to a plurality of on-line retailers included in a directory of on-line retailers sorted according to types of products and services offered.

34. The program for managing inventory purchases according to claim 29, said program further comprising:

program code means for transmitting said search requests for said absent items to a universally accessible database according to a plurality of universal identifiers, wherein each of said plurality of universal identifier is associated with one of said plurality of retailers.

35. The program for managing inventory purchases according to claim 29, said program further comprising:

program code means for constructing a recommended electronic shopping list comprising said absent items from a selection of offers returned from said plurality of retailers at said computer system.

36. The program for managing inventory purchases according to claim 35, said program further comprising:

program code means for constructing said recommended electronic shopping list comprising said absent items from said selection of offers returned from said plurality of retailers according to user preferences for a particular household.

37. The program for managing inventory purchases according to claim 36, said program further comprising:

program code means for constructing said recommended electronic shopping list comprising absent items according to scheduling constraints for a particular household.

38. The program for managing inventory purchases according to claim 35, said program further comprising:

program code means for transmitting orders for said absent items to said selection of said plurality of retailers, in response to receiving a user designation to purchase from said recommended electronic shopping list.

39. The program for managing inventory purchases according to claim 29, said program further comprising:

program code means for periodically transmitting search requests to said plurality of retailers for current specials offered by said plurality of retailers;

program code means for determining if any of said special product offers include items that are designated in user preferences for automatic purchase, in response to receiving special product offers; and

program code means for transmitting an order for a particular special product offer from a particular retailer, in response to determining that said particular

17

special product order is designated in said user preferences for automatic purchase.

40. The program for managing inventory purchases according to claim 29, wherein said absent items are delivered by said particular retailer.

41. The program for managing inventory purchases according to claim 29, said program further comprising:

18

program code means for scheduling a pick-up of said absent items by an ordering party of said absent items.

42. The program for managing inventory purchases according to claim 29, wherein said meal plan is received from an electronic cookbook.

\* \* \* \* \*





US006618062B1

Search  
notes  
09/560386  
10/20/04

(12) **United States Patent**  
**Brown et al.**

(10) **Patent No.:** **US 6,618,062 B1**  
(45) **Date of Patent:** **Sep. 9, 2003**

(54) **METHOD, SYSTEM AND PROGRAM FOR SPECIFYING AN ELECTRONIC MENU WITH FOOD PREFERENCES FROM A PERSONAL STORAGE DEVICE**

(75) **Inventors:** Michael Wayne Brown, Georgetown, TX (US); Kevin Roderick Lawrence, Round Rock, TX (US); Michael A. Paolini, Round Rock, TX (US)

(73) **Assignee:** International Business Machines Corporation, Armonk, NY (US)

(\*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) **Appl. No.:** 09/465,999

(22) **Filed:** Dec. 17, 1999

(51) **Int. Cl.<sup>7</sup>** ..... G09G 5/00

(52) **U.S. Cl.** ..... 345/822; 345/810

(58) **Field of Search** ..... 345/810, 811, 345/968, 744, 745, 760, 821-824; 705/15, 26

(56) **References Cited**

#### U.S. PATENT DOCUMENTS

5,412,564 A	5/1995	Ecer	
5,559,313 A	9/1996	Claus et al.	
5,664,110 A *	9/1997	Green et al.	705/1
5,727,153 A *	3/1998	Powell	235/375
5,845,263 A	12/1998	Camaisa et al.	
5,899,502 A *	5/1999	Del Giorno	283/117
5,969,316 A *	10/1999	Greer et al.	235/375
5,991,739 A *	11/1999	Cupps et al.	705/26
6,026,377 A *	2/2000	Burke	235/383

6,047,327 A *	4/2000	Tso et al.	709/202
6,068,183 A	5/2000	Freeman et al.	
6,087,927 A *	7/2000	Battistini et al.	340/286.06
6,088,681 A *	7/2000	Coleman et al.	705/1
6,123,259 A *	9/2000	Ogasawara	235/380
6,129,274 A *	10/2000	Suzuki	235/380
6,208,976 B1 *	3/2001	Kinebuchi et al.	705/15
6,236,974 B1 *	5/2001	Kolawa et al.	705/7
6,246,998 B1 *	6/2001	Matsumori	345/810
6,301,564 B1 *	10/2001	Halverson	705/15
6,334,109 B1 *	12/2001	Kanevsky et al.	705/14
6,366,220 B1 *	4/2002	Elliott	340/10.1
6,401,034 B1 *	6/2002	Kaplan et al.	340/988
6,405,034 B1 *	6/2002	Tijerino	455/412
6,434,530 B1 *	8/2002	Sloane et al.	235/383

#### OTHER PUBLICATIONS

QuikOrder Press Release, "San Diegans First to Use Domino's Pizza New On-Line Ordering Through QuikOrder.com", Nov. 1999. (Internet Screen Dumps).\*

\* cited by examiner

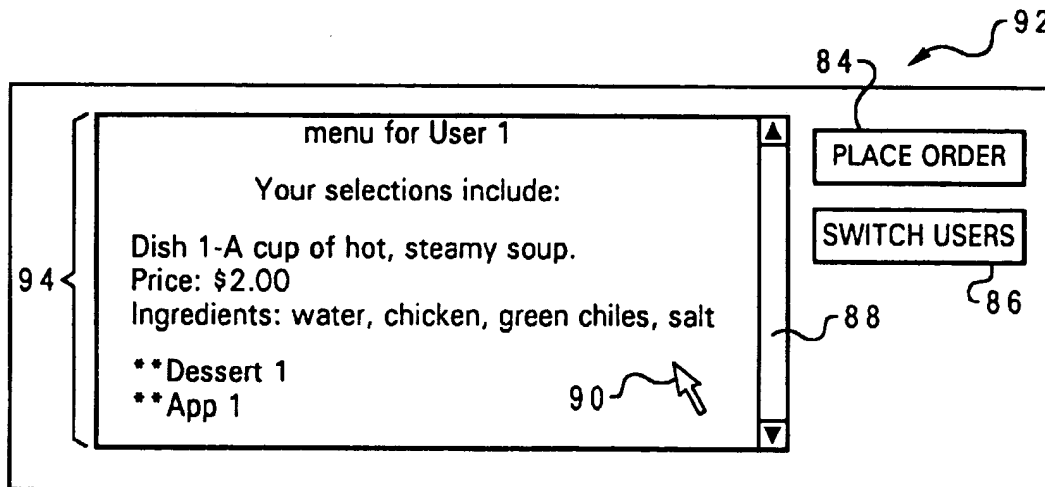
*Primary Examiner*—Sy D. Luu

(74) *Attorney, Agent, or Firm*—Marilyn Smith Dawkins; Bracewell & Patterson, L.L.P.

(57) **ABSTRACT**

Food preferences for a particular customer are retrieved from a personal storage device, wherein the personal storage device is proffered from the particular customer. The food preferences for the particular customer are compared with multiple previously stored food menu items. A food menu is selected wherein the food menu items that satisfy the food preferences for the particular customer are distinguished, such that an electronic food menu is specified for a particular customer.

77 Claims, 10 Drawing Sheets



13

such as floppy disks or CD-ROMs and transmission-type media such as analogue or digital communications links.

While the invention has been particularly shown and described with reference to a preferred embodiment, it will be understood by those skilled in the art that various changes in form and detail may be made therein without departing from the spirit and scope of the invention.

What is claimed is:

1. A method for specifying an electronic food menu, said method comprising the steps of:

retrieving food preferences for a particular customer from a personal storage device carried by said particular customer, wherein said personal storage device is proffered from said particular customer;

comparing said food preferences for said particular customer with a plurality of previously stored food menu items;

presenting a food menu, wherein a plurality of food menu items that satisfy said food preferences for said particular customer are designated, such that an electronic food menu is specified for a said particular customer; and

graphically displaying said electronic food menu, wherein a plurality of food menu items that do not satisfy said food preferences for said particular customer are graphically distinguishable from said plurality of food menu items that do satisfy said food preferences for said particular customer.

2. The method for specifying an electronic food menu according to claim 1, said method further comprising the step of:

graphically displaying said electronic food menu according to an output preference for said particular customer, such that the graphical representation of said electronic food menu is provided to accommodate a display preference for said particular customer.

3. The method for specifying an electronic food menu according to claim 2, said step of graphically displaying said electronic food menu further comprising the step of:

graphically displaying only said plurality of food menu items of said electronic food menu that are designated.

4. The method for specifying an electronic food menu according to claim 2, said step of graphically displaying said electronic food menu further comprising the step of:

graphically displaying said electronic food menu in order from designated food menu items to non-designated food menu items.

5. The method for specifying an electronic food menu according to claim 2, said step of graphically displaying said electronic food menu further comprising the step of:

graphically displaying a tactile-detectable graphical representation of said electronic food menu, wherein said output preference for said particular customer designates a tactile-detectable graphical representation.

6. The method for specifying an electronic food menu according to claim 2, said step of graphically displaying said electronic food menu further comprising the step of:

graphically displaying a graphical representation of said electronic food menu utilizing a particular font size, wherein said output preference for said particular customer designates said particular font size.

7. The method for specifying an electronic food menu according to claim 2, said step of graphically displaying said electronic food menu further comprising the step of:

graphically displaying a graphical representation of said electronic food menu utilizing a particular language,

14

wherein said output preference for said particular customer designates said particular language.

8. The method for specifying an electronic food menu according to claim 2, said step of graphically displaying said electronic food menu further comprising the step of:

graphically displaying a graphical representation of said electronic food menu wherein prices are displayed in a particular currency, wherein said output preference for said particular customer designates said particular currency.

9. The method for specifying an electronic food menu according to claim 1, said method further comprising the step of:

transmitting auditory output of said electronic food menu for said particular customer.

10. The method for specifying an electronic food menu according to claim 1, said method further comprising the step of:

graphically displaying said electronic food menu according to a generic style sheet.

11. The method for specifying an electronic food menu according to claim 1, said step of retrieving food preferences for a particular customer from a personal storage device, further comprising the step of:

receiving said food preferences from a smart card.

12. The method for specifying an electronic food menu according to claim 1, said step of retrieving food preferences for a particular customer from a personal storage device, further comprising the step of:

receiving said food preferences from a java ring.

13. The method for specifying an electronic food menu according to claim 1, said step of retrieving food preferences for a particular customer from a personal storage device, further comprising the step of:

receiving said food preferences from user input to a dumb terminal.

14. The method for specifying an electronic food menu according to claim 1, said step of retrieving food preferences for a particular customer from a personal storage device, further comprising the step of:

receiving said food preferences via a wireless connection to a device that reads said personal storage device.

15. The method for specifying an electronic food menu according to claim 1, said step of comparing further comprising the step of:

first, receiving said plurality of food menu items in a data transmission protocol.

16. The method for specifying an electronic food menu according to claim 1, said step of comparing further comprising the step of:

first, transmitting said food menu items in an extensible markup language protocol.

17. The method for specifying an electronic food menu according to claim 1, said step of retrieving food preferences for a particular customer from a personal storage device, further comprising the step of:

receiving said food preferences via a wired connection to a device that reads said personal storage device.

18. The method for specifying an electronic food menu according to claim 1, said step of comparing said food preferences for said particular customer with a plurality of previously stored food menu items, further comprising the step of:

accessing said plurality of previously stored food menu items from a database, wherein each of said plurality of

15

food menu items comprises a plurality of food and health identifiers.

19. The method for specifying an electronic food menu according to claim 1, said method further comprising the step of:

storing said electronic food menu on said personal storage device.

20. The method for specifying an electronic food menu according to claim 1, said method further comprising the step of:

storing said food preferences for said particular customer at a data storage medium.

21. The method for specifying an electronic food menu according to claim 20, said method further comprising the step of:

determining electronic coupons to provide a particular customer from said stored food preferences.

22. The method for specifying an electronic food menu according to claim 1, said method further comprising the steps of:

receiving an order from said particular customer for food menu items from said electronic food menu; and transmitting said order to an order retrieval system.

23. The method for specifying an electronic food menu according to claim 22, said method further comprising the step of:

confirming electronic payment for said order.

24. The method for specifying an electronic food menu according to claim 1, said method further comprising the step of:

updating an electronic calendar on said personal storage device with said designated food menu items that are specified in said food preferences for a particular time period.

25. The method for specifying an electronic food menu according to claim 1, said method further comprising the step of:

receiving electronic coupons for said plurality of food menu items from said data storage medium.

26. The method for specifying an electronic food menu according to claim 25, said method further comprising the step of:

filtering said electronic coupons that are displayed to a particular customer according to said food preferences.

27. The method for specifying an electronic food menu according to claim 1, said method further comprising the step of:

designating those food menu items that do not meet said food preferences.

28. The method for specifying an electronic food menu according to claim 1, wherein said previously stored food preferences includes health rating preferences for said particular customer.

29. The method for specifying an electronic food menu according to claim 1, wherein said previously stored food preferences includes attributes of specified allowable ingredients and specified avoided ingredients for said particular customer.

30. A system for specifying an electronic food menu, said system comprising:

a personal storage device comprising food preferences for a particular customer;

a data processing system enabled to access said personal storage device;

a graphical display monitor for displaying said electronic food menu such that a plurality of food menu items that

16

do not satisfy said previously stored food preferences for said particular customer are graphically distinguishable from a plurality of food menu items that do satisfy said previously stored food preferences for said particular customer;

said data processing system comprising:

a communications medium for retrieving said previously stored food preferences for said particular customer from said personal storage device carried by said customer, wherein said personal storage device is proffered from said particular customer;

means for comparing said previously stored food preferences for said particular customer with a plurality of previously stored food menu items; and

means for presenting a food menu, wherein said plurality of food menu items that satisfy said previously stored food preferences for said particular customer are designated, such that an electronic food menu is specified for a particular customer.

31. The system for specifying an electronic food menu according to claim 30, said system further comprising:

a graphical display monitor for displaying said electronic food menu according to an output preference for said particular customer, such that the graphical representation of said food menu is provided to accommodate a display preference of said particular customer.

32. The system for specifying an electronic food menu according to claim 31, wherein said graphical display monitor only displays said plurality of food menu items of said electronic food menu that are designated.

33. The system for specifying an electronic food menu according to claim 31, wherein said graphical display monitor displays said electronic food menu items in order from designated food menu items to non-designated food menu items.

34. The system for specifying an electronic food menu according to claim 31, wherein said graphical display monitor displays a tactile-detectable graphical representation of said electronic food menu.

35. The system for specifying an electronic food menu according to claim 31, wherein said graphical display monitor displays a graphical representation of said electronic food menu utilizing a particular font size.

36. The system for specifying an electronic food menu according to claim 31, wherein said graphical display monitor displays a graphical representation of said electronic food menu utilizing a particular language.

37. The system for specifying an electronic food menu according to claim 31, wherein said graphical display monitor displays a graphical representation of said electronic food menu wherein said prices are depicted utilizing a particular currency.

38. The system for specifying an electronic food menu according to claim 30, said system further comprising an audio element for transmitting auditory output of said electronic food menu for said particular customer.

39. The system for specifying an electronic food menu according to claim 30, said system further comprising a printing element for graphically printing said electronic food menu for said particular customer.

40. The system for specifying an electronic food menu according to claim 31, said system further comprising:

a graphical display monitor for displaying a graphical representation of said electronic food menu according to a generic style sheet.

41. The system for specifying an electronic food menu according to claim 30, wherein said communications

17

medium for retrieving said previously stored food preferences for said particular customer from said personal storage device, further comprises:

a personal storage device input/output adapter accessible by said data processing system.

42. The system for specifying an electronic food menu according to claim 41, wherein said personal storage device further comprises a smart card reader.

43. The system for specifying an electronic food menu according to claim 41, wherein said personal storage device further comprises a java adapter.

44. The system for specifying an electronic food menu according to claim 41, wherein data transmission between said personal integrated circuit input/output adapter and said data processing system is a wireless transmission.

45. The system for specifying an electronic food menu according to claim 30, wherein said personal storage device further comprises a smart card.

46. The system for specifying an electronic food menu according to claim 30, wherein said personal storage device further comprises a java ring.

47. The system for specifying an electronic food menu according to claim 30, wherein said personal storage device further comprises a dumb terminal.

48. The system for specifying an electronic food menu according to claim 30, wherein said communication element further comprises a wireless transmission medium.

49. The system for specifying an electronic food menu according to claim 30, wherein said plurality of previously stored food menu items are accessible from a database, wherein each of said plurality of food menu items comprises food and health identifiers.

50. The system for specifying an electronic food menu according to claim 23, wherein said system further comprises:

means for storing said electronic food menu on said personal storage device.

51. The system for specifying an electronic food menu according to claim 30, said system further comprising:

means for accumulating said previously stored food preferences for said particular customer at a data storage medium.

52. The system for specifying an electronic food menu according to claim 31, wherein said data processing system transmits an order from said particular customer of a customer selection of food menu items from said electronic food menu.

53. The system for specifying an electronic food menu according to claim 52, wherein said data processing system request confirmation of an electronic payment for said order.

54. The system for specifying an electronic food menu according to claim 52, wherein said personal storage device further comprises an electronic calendar that is updated with food menu items that are designated for a particular time period.

55. The system for specifying an electronic food menu according to claim 34, wherein said data processing system further comprises:

means for comparing said plurality of food menu items with a plurality of previously stored food preferences for a plurality of customers; and

means for selecting a food menu wherein said plurality of food menu items that satisfy said previously stored food preferences for said plurality of customers are distinguished, such that an electronic food menu is specified for said plurality of customers.

18

56. The system for specifying an electronic food menu according to claim 30, said system further comprising:

means for designating those food menu items that do not meet said food preferences.

57. The system for specifying an electronic food menu according to claim 30, wherein said previously stored food preferences includes health rating preferences for said particular customer.

58. The system for specifying an electronic food menu according to claim 30, wherein said previously stored food preferences includes attributes of specified allowable ingredients and specified avoided ingredients for said particular customer.

59. A program, residing on a computer usable medium having computer readable program code means, said program comprising:

means for retrieving food preferences for a particular customer from a personal storage device carried by said particular customer, wherein said personal storage device is proffered from said particular customer;

means for comparing said food preferences for said particular customer with a plurality of previously stored food menu items;

means for generating an electronic food menu designating a selection of said plurality of food menu items that satisfy said food preferences for said particular customer; and

means for graphically displaying said electronic food menu, wherein said plurality of food menu items that do not satisfy said food preferences for said particular customer are graphically distinguishable from said plurality of food menu items that do satisfy said food preferences for said particular customer.

60. The program according to claim 59, said program further comprising:

means for enabling a graphical display of said generated food menu for said particular customer.

61. The program according to claim 59, said program further comprising:

means for enabling said graphical display of said generated food menu according to an output preference for said particular customer.

62. The program according to claim 59, said program further comprising:

means for enabling a hyperbraille graphical representation of said generated food menu.

63. The program according to claim 59, said program further comprising:

means for enabling a graphical representation of said generated food menu utilizing a particular language.

64. The program according to claim 59, said program further comprising:

means for enabling a graphical representation of said generated food menu wherein prices are displayed in a particular currency.

65. The program according to claim 59, said program further comprising:

means for enabling auditory output of said generated food menu for said particular customer.

66. The program according to claim 59, said program further comprising:

means for enabling tactile-detectable output of said generated food menu for said particular customer.

19

67. The program according to claim 59, said program further comprising:

means for receiving said food preferences from a smart card.

68. The program according to claim 59, said program further comprising:

means for receiving said food preferences from a java ring.

69. The program according to claim 59, said program further comprising:

means for receiving said food preferences from user input to a dumb terminal.

70. The program according to claim 59, said program further comprising:

means for storing said electronic food menu on said personal storage device.

71. The program according to claim 59, program further comprising:

means for transmitting an order from said particular customer of a customer selection of food menu items from said electronic food menu.

72. The program according to claim 55, said program further comprising:

means for designating those food menu items that do not meet said food preferences.

73. The program according to claim 59, wherein said previously stored food preferences includes health rating preferences for said particular customer.

74. The program according to claim 59, wherein said previously stored food preferences includes attributes of specified allowable ingredients and specified avoided ingredients for said particular customer.

75. A method for specifying an electronic food menu, said method comprising the steps of:

retrieving food preferences for a particular customer from a personal storage device carried by said particular customer, wherein said personal storage device is proffered from said particular customer;

comparing said food preferences for said particular customer with a plurality of previously stored food menu items; and

presenting a food menu, wherein a plurality of food menu items that are indicated to be avoided by said previously stored food preferences for said particular customer are presented in said food menu and are designated in a manner to distinguish from other food menu items presented in said food menu, such that a customized electronic food menu is specified for a particular customer.

20

76. A system for specifying an electronic food menu, said system comprising:

a personal storage device comprising food preferences for a particular customer;

a data processing system enabled to access said personal storage device;

said data processing system comprising:

a communications medium for retrieving said food preferences for said particular customer from said personal storage device carried by said customer, wherein said personal storage device is proffered from said particular customer;

means for comparing said food preferences for said particular customer with a plurality of previously stored food menu items; and

means for presenting a food menu, wherein a plurality of food menu items that are indicated to be avoided by said previously stored food preferences for said particular customer are presented in said food menu and are designated in a manner to distinguish from other food menu items presented in said food menu, such that a customized electronic food menu is specified for a particular customer.

77. A program, residing on a computer usable medium having computer readable program code means, said program comprising:

means for retrieving food preferences for a particular customer from a personal storage device carried by said particular customer, wherein said personal storage device is proffered from said particular customer;

means for comparing said food preferences for said particular customer with a plurality of previously stored food menu items; and

means for generating a food menu presenting a selection of said plurality of food menu items indicated to be avoided by said previously stored food preferences for said particular customer and a selection of said plurality of food menu items not indicated to be avoided by said previously stored food preferences for said particular customer, wherein said selection of said plurality of food menu items indicated to be avoided is designated in a manner to distinguish from said selection of said plurality of food menu items not indicated to be avoided by said previously stored food preferences for said particular customer.

\* \* \* \* \*



US006646659B1

search  
notes  
09/560386  
10/28/04

(12) **United States Patent**  
**Brown et al.**

(10) **Patent No.: US 6,646,659 B1**  
(45) **Date of Patent: \*Nov. 11, 2003**

(54) **METHOD, SYSTEM AND PROGRAM FOR SPECIFYING AN ELECTRONIC FOOD MENU WITH FOOD PREFERENCES FROM A UNIVERSALLY ACCESSIBLE DATABASE**

(75) **Inventors:** Michael Wayne Brown, Georgetown, TX (US); Kevin Roderick Lawrence, Round Rock, TX (US); Michael A. Paolini, Round Rock, TX (US)

(73) **Assignee:** International Business Machines Corporation, Armonk, NY (US)

(\*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) **Appl. No.:** 09/466,051

(22) **Filed:** Dec. 17, 1999

(51) **Int. Cl.<sup>7</sup>** ..... G09G 5/00

(52) **U.S. Cl.** ..... 345/811; 345/745; 705/15; 705/26

(58) **Field of Search** ..... 345/810, 811, 345/968, 744, 745, 760; 705/15, 26

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

5,412,564 A	5/1995	Ecer	
5,559,313 A	9/1996	Claus et al.	
5,664,110 A *	9/1997	Green et al.	705/1
5,727,153 A *	3/1998	Powell	235/375
5,845,263 A *	12/1998	Camaisa et al.	705/27
5,899,502 A *	5/1999	Del Giorno	283/117
5,969,316 A *	10/1999	Greer et al.	235/375
5,991,739 A *	11/1999	Cupps et al.	705/26

6,026,377 A *	2/2000	Burke	235/383
6,047,327 A *	4/2000	Tso et al.	709/202
6,068,183 A *	5/2000	Freeman et al.	235/375
6,087,927 A *	7/2000	Battistini et al.	340/286.06
6,088,681 A *	7/2000	Coleman et al.	705/1
6,123,259 A *	9/2000	Ogasawara	235/380
6,129,274 A *	10/2000	Suzuki	235/380
6,208,976 B1 *	3/2001	Kinebuchi et al.	705/15
6,236,974 B1 *	5/2001	Kolawa et al.	705/7
6,246,998 B1 *	6/2001	Matsumori	345/810
6,301,564 B1 *	10/2001	Halverson	705/15
6,334,109 B1 *	12/2001	Kanevsky et al.	705/14
6,366,220 B1 *	4/2002	Elliott	340/10.1
6,401,034 B1 *	6/2002	Kaplan et al.	340/988
6,405,034 B1 *	6/2002	Tijerino	455/412
6,434,530 B1 *	8/2002	Sloane et al.	235/383
6,553,386 B1 *	4/2003	Alabaster	707/104.1

**OTHER PUBLICATIONS**

QuikOrder Press Release, "San Diegans First to Use Domino's Pizza New On-Line Ordering Through QuikOrder.com", Nov. 1999. (Internet Screen Dumps).\*

\* cited by examiner

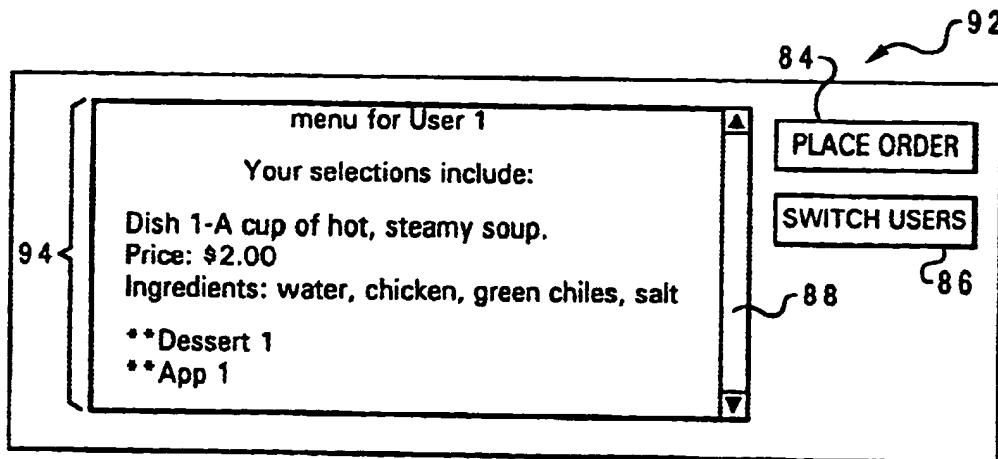
*Primary Examiner*—Sy D. Luu

(74) *Attorney, Agent, or Firm*—Marilyn Smith Dawkins; Bracewell & Patterson, L.L.P.

(57) **ABSTRACT**

Food preferences for a particular customer are requested from a universally accessible database, wherein a key for the particular customer is required to access the food preferences for the particular customer. The food preferences for the particular customer are compared with multiple previously stored food menu items. A food menu comprising only said food menu items that satisfy the food preferences for the particular customer are selected, such that an electronic food menu is specified for a particular customer.

67 Claims, 11 Drawing Sheets



11

What is claimed is:

1. A method for specifying an electronic food menu, said method comprising the steps of:

retrieving food preferences for a particular customer from a universally accessible database, wherein a key for said particular customer is required to access said food preferences for said particular customer;

comparing said food preferences for a particular customer with a plurality of previously stored food menu items; presenting a food menu wherein a plurality of food menu items that satisfy said food preferences for said particular customer are designated on said electronic food menu, such that, an electronic food menu is specified for said particular customer; and

graphically displaying said electronic food menu, wherein a plurality of food menu items that do not satisfy said food preferences for said particular customer are graphically distinguishable from said plurality of food menu items that do satisfy said food preferences for said particular customer.

2. The method for specifying an electronic food menu according to claim 1, said method further comprising the step of:

graphically displaying said electronic food menu according to an output preference for said particular customer, such that the graphical representation of said electronic food menu is provided to accommodate a display preference for said particular customer.

3. The method for specifying an electronic food menu according to claim 2, said step of graphically displaying said electronic food menu further comprising the step of:

graphically displaying only said plurality of food menu items of said electronic food menu that are designated.

4. The method for specifying an electronic food menu according to claim 2, said step of graphically displaying said electronic food menu further comprising the step of:

graphically displaying said electronic food menu in order from designated food menu items to non-designated food menu items.

5. The method for specifying an electronic food menu according to claim 2, said step of graphically displaying said electronic food menu further comprising the step of:

graphically displaying a tactile-detectable graphical representation of said electronic food menu, wherein said output preference for said particular customer designates a tactile-detectable graphical representation.

6. The method for specifying an electronic food menu according to claim 2, said step of graphically displaying said electronic food menu further comprising the step of:

graphically displaying a graphical representation of said electronic food menu utilizing a particular font size, wherein said output preference for said particular customer designates said particular font size.

7. The method for specifying an electronic food menu according to claim 2, said step of graphically displaying said electronic food menu further comprising the step of:

graphically displaying a graphical representation of said electronic food menu utilizing a particular language, wherein said output preference for said particular customer designates said particular language.

8. The method for specifying an electronic food menu according to claim 2, said step of graphically displaying said electronic food menu further comprising the step of:

graphically displaying a graphical representation of said electronic food menu wherein prices are displayed in a

12

particular currency, wherein said output preference for said particular customer designates said particular currency.

9. The method for specifying an electronic food menu according to claim 1, said method further comprising the step of:

transmitting auditory output of said electronic food menu for said particular customer.

10. The method for specifying an electronic food menu according to claim 1, said method further comprising the step of:

graphically printing said electronic food menu for said particular customer.

11. The method for specifying an electronic food menu according to claim 1, said method further comprising the step of:

graphically displaying said electronic food menu according to a generic style sheet.

12. The method for specifying an electronic food menu according to claim 1, said step of retrieving food preferences for a particular customer from a universally accessible database, further comprising the step of:

receiving said food preferences from said universally accessible database via a wireless transmission medium.

13. The method for specifying an electronic food menu according to claim 1, said step of retrieving food preferences for a particular customer from a universally accessible database, further comprising the step of:

receiving said food preferences from said universally accessible database via a network transmission medium.

14. The method for specifying an electronic food menu according to claim 1, said step of retrieving food preferences for a particular customer from a universally accessible database, further comprising the step of:

retrieving said food preferences from said universally accessible database wherein said universally accessible database is distributed throughout a remote server system.

15. The method for specifying an electronic food menu according to claim 1, said step of retrieving food preferences for a particular customer from a universally accessible database, further comprising the steps of:

searching said universally accessible database for a customer identification for said particular customer;

comparing said key with an enabling key for said customer identification, in response to locating said customer identification for said particular customer;

enabling the retrieval of said food preferences for said particular customer, in response to a match with said key and said enabling key.

16. The method for specifying an electronic food menu according to claim 13, said step of retrieving food preferences for a particular customer from a universally accessible database, further comprising the step of:

receiving a customer identification and key from a personal integrated circuit device.

17. The method for specifying an electronic food menu according to claim 15, said step of retrieving food preferences for a particular customer from a universally accessible database, further comprising the step of:

receiving a customer identification and key from data entry by said particular customer.

18. The method for specifying an electronic food menu according to claim 1, said step of comparing said food

13

preferences for a particular customer with a plurality of previously stored food menu items, further comprising the step of:

accessing said plurality of previously stored food menu items from a database, wherein each of said plurality of food menu items comprises a plurality of food and health identifiers.

19. The method for specifying an electronic food menu according to claim 1, said method further comprising the step of:

transmitting said previously stored food preferences for said particular customer to said universally accessible database.

20. The method for specifying an electronic food menu according to claim 1, said method further comprising the steps of:

receiving an order from said particular customer for food menu items from said electronic food menu; and

transmitting said order to an order retrieval system.

21. The method for specifying an electronic food menu according to claim 20, said method further comprising the steps of:

confirming electronic payment for said order.

22. The method for specifying an electronic food menu according to claim 20, said method further comprising the steps of:

updating an electronic calendar with said food menu items that are specified for a particular time period.

23. The method for specifying an electronic food menu according to claim 1, said method further comprising the step of:

enabling a particular customer to amend said food preferences for said particular customer that are retrievable from said universally accessible database.

24. The method for specifying an electronic food menu according to claim 1, said method further comprising the step of:

designating those food menu items that do not meet said food preferences.

25. The method for specifying an electronic food menu according to claim 1, wherein said previously stored food preferences includes health rating preferences for said particular customer.

26. The method for specifying an electronic food menu according to claim 1, wherein said previously stored food preferences includes attributes of specified allowable ingredients and specified avoided ingredients for said particular customer.

27. A system for specifying an electronic food menu, said system comprising:

a universal communications identification device comprising a plurality of food preferences for a plurality of customers, wherein a key is required to access said food preferences for each of said plurality of customers;

a data processing system with access to said universal communications identification device;

wherein said data processing system comprises:

a communications medium for retrieving food preferences with a key for a particular customer from among said plurality of food preferences for said plurality of customers in said universally accessible database;

means for comparing said food preferences for said particular customer with a plurality of previously stored food menu items;

14

means for presenting a food menu comprising only a plurality of food menu items that satisfy said food preferences for said particular customer, such that an electronic food menu is specified for said particular customer; and

means for graphically displaying said electronic food menu, wherein a plurality of food menu items that do not satisfy said food preferences for said particular customer are graphically distinguishable from said plurality of food menu items that do satisfy said food preferences for said particular customer.

28. The system for specifying an electronic food menu according to claim 27, said system further comprising:

a graphical display monitor for displaying said electronic food menu according to an output preference for said particular customer, such that the graphical representation of said food menu is provided to accommodate a display preference of said particular customer.

29. The system for specifying an electronic food menu according to claim 28, wherein said graphical display monitor only displays said plurality of food menu items of said electronic food menu that are designated.

30. The system for specifying an electronic food menu according to claim 28, wherein said graphical display monitor displays said electronic food menu items in order from designated food menu items to non-designated food menu items.

31. The system for specifying an electronic food menu according to claim 28, wherein said graphical display monitor displays a tactile-detectable graphical representation of said electronic food menu.

32. The system for specifying an electronic food menu according to claim 28, wherein said graphical display monitor displays a graphical representation of said electronic food menu utilizing a particular font size.

33. The system for specifying an electronic food menu according to claim 28, wherein said graphical display monitor displays a graphical representation of said electronic food menu utilizing a particular language.

34. The system for specifying an electronic food menu according to claim 28, wherein said graphical display monitor displays a graphical representation of said electronic food menu wherein said prices are depicted utilizing a particular currency.

35. The system for specifying an electronic food menu according to claim 27, said system further comprising:

an audio element for transmitting auditory output of said electronic food menu for said particular customer.

36. The system for specifying an electronic food menu according to claim 27, said system further comprising:

a printing element for graphically printing said electronic food menu for said particular customer.

37. The system for specifying an electronic food menu according to claim 27, said system further comprising:

a graphical display monitor for displaying a graphical representation of said electronic food menu according to a generic style sheet.

38. The system for specifying an electronic food menu according to claim 27, wherein said means for retrieving a plurality of food menu items from said data storage medium, further comprises:

a wireless communication element for receiving said plurality of food menu items via a wireless transmission medium.

39. The system for specifying an electronic food menu according to claim 27, wherein said means for retrieving a



15

plurality of food menu items from said data storage medium, further comprises:

a network element for receiving said plurality of food menu items via a network connection.

40. The system for specifying an electronic food menu according to claim 27, wherein said means for retrieving a plurality of food menu items from said data storage medium, further comprises:

a socket interface for receiving said plurality of food menu items via a wired connection.

41. The system for specifying an electronic food menu according to claim 27, wherein said data storage medium further comprises:

a plurality of food menu items accessible from a database, wherein each of said plurality of food menu items comprises an item name, a list of at least one ingredient, a price, and a plurality of ratings.

42. The system for specifying an electronic food menu according to claim 27, said system further comprising:

a local data storage medium comprising said previously stored food preferences for said particular customer, wherein said previously stored food preferences for a particular customer comprise a plurality of food ratings.

43. The system for specifying an electronic food menu according to claim 27, said system further comprising:

means for transmitting said previously stored food preferences for said particular customer to said data storage medium.

44. The system for specifying an electronic food menu according to claim 27, said data processing system further comprising:

a local data storage medium for storing said electronic food menu.

45. The system for specifying an electronic food menu according to claim 27, said system further comprising:

a second data processing system for accessing said data storage medium, wherein said data processing system accesses said data storage medium via said second data processing system.

46. The system for specifying an electronic food menu according to claim 27, wherein said data processing system comprises a pervasive data processing system.

47. The system for specifying an electronic food menu according to claim 27, wherein said data processing system comprises a workstation.

48. The system for specifying an electronic food menu according to claim 27, wherein said data processing system transmits an order from said particular customer of food menu items from said electronic food menu.

49. The system for specifying an electronic food menu according to claim 48, wherein said data processing system requests confirmation of an electronic payment for said order.

50. The system for specifying an electronic food menu according to claim 48, wherein said universally accessible database further comprises an electronic calendar for each particular customer that is updated with food menu items that are designated for a particular period of time.

51. The system for specifying an electronic food menu according to claim 27, wherein said data processing system further comprises:

means for comparing said plurality of food menu items with a plurality of previously stored food preferences for a plurality of customers; and

means for selecting a food menu wherein said plurality of food menu items that satisfy said previously stored

16

food preferences for said plurality of customers are distinguished, such that an electronic food menu is specified for said plurality of customers.

52. The system for specifying an electronic food menu according to claim 27, said system further comprising:

means for designating those food menu items that do not meet said food preferences.

53. The system for specifying an electronic food menu according to claim 27, wherein said previously stored food preferences includes health rating preferences for said particular customer.

54. The system for specifying an electronic food menu according to claim 27, wherein said previously stored food preferences includes attributes of specified allowable ingredients and specified avoided ingredients for said particular customer.

55. A program, residing on a computer usable medium having computer readable program code means, said program comprising:

means for retrieving food preferences with a key for a particular customer from among said plurality of food preferences for said plurality of customers in said universally accessible database;

means for comparing said food preferences for said particular customer with a plurality of previously stored food menu items;

means for generating an electronic food menu comprising said plurality of food menu items that satisfy said food preferences for said particular customer, such that an electronic food menu is specified for said particular customer; and

means for graphically displaying said electronic food menu, wherein a plurality of food menu items that do not satisfy said food preferences for said particular customer are graphically distinguishable from said plurality of food menu items that do satisfy said food preferences for said particular customer.

56. The program according to claim 55, said program further comprising:

means for enabling a graphical display of said plurality of food menu items, wherein said plurality of food menu items that do not satisfy said preferences are graphically designated.

57. The program according to claim 55, said program further comprising:

means for enabling said graphical display of said generated food menu according to an output preference for said particular customer.

58. The program according to claim 55, said program further comprising:

means for enabling auditory output of said generated food menu for said particular customer.

59. The program according to claim 55, said program further comprising:

means for enabling tactile-detectable output of said generated food menu for said particular customer.

60. The program according to claim 55, said program further comprising:

means for transmitting said food preferences for said particular customer to said data storage medium.

61. The program according to claim 55, said program further comprising:

means for receiving an order from said particular customer of electronic food menu items from among said electronic food menu; and

17

means for transmitting said order to an order retrieval system.

62. The program according to claim 55, said program further comprising:

means for designating those food menu items that do not meet said food preferences. 5

63. The program according to claim 55, wherein said previously stored food preferences includes health rating preferences for said particular customer.

64. The program according to claim 51, wherein said previously stored food preferences includes attributes of specified allowable ingredients and specified avoided ingredients for said particular customer. 10

65. A method for specifying an electronic food menu, said method comprising the steps of: 15

retrieving a plurality of food menu items from a data storage medium;

comparing said plurality of food menu items with previously stored food preferences for a particular customer; and 20

presenting a food menu, wherein a plurality of food menu items that are indicated to be avoided by said previously stored food preferences for said particular customer are presented in said food menu and are designated in a manner to distinguish from other food menu items presented in said food menu, such that a customized electronic food menu is specified for a particular customer. 25

66. A system for specifying an electronic food menu, said system comprising: 30

a data storage medium comprising a plurality of food menu items;

a data processing system with access to said data storage medium; 35

wherein said data processing system comprises:

18

a communications medium for retrieving said plurality of food menu items from said data storage medium;

means for comparing said plurality of food menu items with a plurality of previously stored food preferences for a particular customer; and

means for presenting a food menu, wherein a plurality of food menu items that are indicated to be avoided by said previously stored food preferences for said particular customer are presented in said food menu and are designated in a manner to distinguish from other food menu items presented in said food menu, such that a customized electronic food menu is specified for a particular customer.

67. A program, residing on a computer usable medium having computer readable program code means, said program comprising:

means for retrieving a plurality of food menu items from a data storage medium;

means for comparing said plurality of food menu items with previously stored food preferences for a particular customer; and

means for generating a food menu presenting a selection of said plurality of food menu items indicated to be avoided by said previously stored food preferences for said particular customer, and a selection of said plurality of food menu items not indicated to be avoided by said previously stored food preferences for said particular customer, wherein said selection of said plurality of food menu items indicated to be avoided is designated in a manner to distinguish from said selection of said plurality of food menu items not indicated to be avoided by said previously stored food preferences for said particular customer.

\* \* \* \* \*